

Background of the Invention

As schematically depicted in appended drawing Figures 1-3, prior art workers have recognized the need within bedding environments (9) for bars-wise (21-24) horizontally framing the rectangular periphery (11-14) of horizontal sleeping mattresses (e.g. 10) having an upper sleeping surface (10A). For necessary endwise attachment of such four bars horizontal framework (21-24), prior art workers have relied upon various inter-bars attachment means, respectively located outwardly of mattress corners (16-19), such as:

(a) at confronting straight-edge termini for bars 22 and 23 (at mattress corner 18), an upright adhesive 23TB;

(b) at confronting straight-edge termini for bars 21 and 23 (at mattress corner 16), a topically applied adhesive tape 21AS;

(c) at confronting beveled-edges termini for bars 22 and 24 (at mattress corner 19), an upright adhesive 24TB; and

(d) at confronting beveled-edges termini for bars 21 and 24 (at mattress corner 17), a topically applied adhesive tape 24AS.

However, such peripheral (11-14) mattress-abutting four-bars (21-24) framework which are thusly cornerwise attached (e.g. as 21AS, 23TB, 24TB, 24AS) are fraught with cumbersome and expensive installation problems, and shown to be unreliable for attaining mattress peripheral abutment and suffer from inimical inter-bars connections.

General Objectives of the Present Invention

In view of the foregoing, it is the general objective of the present invention to provide a reliable and economic means for attaining a four-bars mattress closely-surrounding framework for horizontal mattresses, and which General Objective solves problems heretofore unsuccessfully addressed by prior art workers for co-attaining close abutment peripherally and endwise engagement with horizontal mattresses. This General Objective is met and alluded to in the present patent application with the appended drawing Figures 4-7, and in an ancillary vein as depicted in appended drawing Figures 4A, 5A, and 6A.

General Statement of the Invention

Being mindful of the foregoing "General Objectives of the Present Invention", it is the "General Statement of the (Present) Invention" to provide a rectangular four-bars framework for a selectable conventional sleeping mattress and cornerwise of the mattress, four intervening and cornerwise confrontational elongate bars which are reliably mateably self-interlocking in removable conditions through admirable tongue-and-groove means employable at cornerwise confrontations between intervening framework perpendicular elongate bars .

Brief Description of the Drawing

In the drawing, wherein like characters refer to like parts in the several views, and in which:

Drawing Figures 1-3, aforescribed, are top plan and sectional elevational views, of prior art "resinous frameworks for sleeping mattresses" ;

Drawing Figure 4 is a top plan view, similar to Figure 1, showing representative embodiment 50 of the "Self-Interlocking Resinous Frame for Sleeping Mattresses" of the present invention and comprising two identical longitudinal-bars 70 and two identical and interlocking intervening transverse-bars 80;

Drawing Figure 5 is a detail plan view of one such transverse-bar 80; and drawing Figure 6 is an elevational view taken along line 6-6 of Figure 5;

Drawing Figure 7 is a detail plan view of one such longitudinal-bar 70; and drawing Figure 8 is an elevational view taken along line 8-8 of Figure 7;

Drawing Figure 4A is a fragmentary top plan view, similar to Figure 4, but alluding to an alternate embodiment 150 of the "Self-Interlocking Resinous Frame for Sleeping Mattresses" and comprising corner-wise confronting/interlocking elongate bars 170 and 180;

Drawing Figure 5A is a detail plan view of the transverse bar portion 180 for alternate embodiment 150 ; and

Drawing Figure 6A is a detail plan view of the longitudinal bar portion 170 for alternate embodiment 150.

Detailed Description of the Drawing

In the drawing, wherein like characters refer to like parts in the several views, and in which:

Drawing Figures 1-3, aforescribed, relate to a selectable conventional sleeping mattress (e.g. 10, 10A-14) having four upright corners (16-19) and frameably surrounded by four elongate resiliently-compressive resinous bars (21-24). Such drawing Figures 1-3 allude to representative prior art methods (e.g. 21AS, 23TB, 24AS, 24TB) for attaching such framework bars (21-24) immediately about respective corner locations (16-19) of a selectable sleeping mattress.

Drawing Figures 4-8 are directed to a representative embodiment 50 for the novel "Self-Interlocking Resinous Frame for Sleeping

Mattresses" of the present invention. Embodiment 50, of course, retains from Figures 1-3 a selectable conventional sleeping mattress (e.g.

10, 10A-14), and also retains in a general sense from Figures 1-3 four framework bars. In the latter regard, the novel self-interlocking framework 60 for invention embodiment 50 comprises the novel interlockable elongate bars 70 and 80. Specifically, there are two parallel longitudinal-bars 70, each extending lengthwise along a central longitudinal-axis 70A between endwise-terminii 71 and lengthwise flanked by an upright outer-surface 72 and an upright inner-surface 73 that substantially abuts a mattress upright longitudinal-edge (11, 13). Moreover, there are two parallel transverse-bars 80, each extending lengthwise along a central transverse-axis 80A between endward-terminii 81 and lengthwise flanked by an upright outward-surface 82 and an upright inward-surface 83 that substantially abuts a mattress upright transverse-edge (12, 14). It will, thus, be seen that each such bar (70, 80) is preferably of regular rectangular cross-sectional size along its central axis (70A, 80A). As for the resiliently-compressive structural material for elongate bars 70 and 80, polyurethanes are preferred for the resinous structural material.

As a marked departure from prior art confronting-bars attachment means (e.g. 21AS, 23TB, 24AS, 24TB), the surrounding interconnected framework 60 for representative embodiment 50 and at each cornerwise confrontation for elongate bars 70 and 80 includes mateable tongue-and-groove capability (73A, 81A). In this regard: an upright T-shaped tongue 81A might emanate from each endward-terminus of 81 for a transverse-bar 80; and a matching upright T-shaped groove 73A might invade the inner-surface 73 for a longitudinal-bar 70. So as to enhance the integrity for inter-bars removably installable inter-lockability, the upright tongues 81A are predominately located between transverse-axis 80A and the upright inward-surface 83, while simultaneously the upright T-shaped grooves 73A are predominately located between longitudinal-axis 70A and the upright inner-surface 73. Reference characters 84 indicate that the transverse-bars' inward-surfaces 83 might terminate concavely toward endward-terminii for uprightly abutting the inner-surface 73 of a cornerwise confronting longitudinal-bar 70. As previously alluded to, each such equipped longitudinal-bar (70, 73A) and each such confrontable and mateably equipped transverse-bar (80, 81A, 84) is unitarily constructed throughout of a resiliently-compressive resinous material, and resinous polyurethane foams being preferred.

Drawing Figures 4A, 5A, and 6A, in plan views indicate that the tongues-and-grooves mateably securable inter-bars' capabilities are readily reversible between the cornerwise (16-19) confronting transverse-bars and cornerwise intervening longitudinal-bars. For example, in such drawing Figure 4A for alternate embodiment 150, and analagous to the representative upper portion for framework 60 of embodiment 50, the 70-character reminescent longitudanal-bars 170, immediately recessed from their

terminii at inner-surface 173 are provided with upright T-shaped tongues 173A having a removably mateably capability with endward upright T-shaped recesses 183A of transverse-bars 180.

From the foregoing, the construction and operation of the "Self-Interlocking Resinous Frame for Sleeping Mattresses" concept of the present invention will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and equivalents and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact constructions shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claims.